



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/065,376	10/10/2002	Robert B. Peterson	KEL-85	1012

7590 12/06/2005

Mr. J.P. Ward
Kellogg Brown & Root, Inc.
601 Jefferson
Houston, TX 77002

EXAMINER

NECKEL, ALEXA DOROSHENK

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 12/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

48

Office Action Summary	Application No. 10/065,376	Applicant(s) PETERSON ET AL.	
	Examiner Alexa D. Neckel	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 October 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/10/02 & 6/10/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-11 in the reply filed on September 27, 2005 is acknowledged. The traversal is on the ground(s) that claims 11 and 12 (non-elected Group II) is either a method of using or making the claimed apparatus and contains essentially all of the elements of claim 1 so there is no additional burden of the office. This is not found persuasive because establishing that the inventions are classified in different classes and/or subclasses establishes that a serious burden exists on the examiner if restriction is not required.

The restriction requirement is still deemed proper and is therefore made FINAL.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: "air supply assembly 460" in paragraph 0045. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Art Unit: 1764

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "129" in figures 2 and 5; "184" in figure 1; and "404" in figures 4 and 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3 and 5-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Murphy et al. (4,150,090).

With respect to claims 1, 8 and 9, Murphy et al. discloses a catalyst regenerator comprising:

Art Unit: 1764

a regenerator vessel (10) housing a dense phase catalyst bed (abstract and col. 5, lines 19-22);

a central upright standpipe (12);

a well pipe (18) receiving a lower end of the standpipe (12) to form an annulus (see figure);

a valve (14) controlling flow from the vertical standpipe to the annulus (col. 3, lines 19-28) and located at the lower end of the standpipe (12) (see figure 1);

a distributor (20) within the well pipe (18);

a radial slot/arm (26) in the well pipe (18) below the upper surface of the dense bed (col. 3, lines 47-48);

a distributor (38/40) to the dense phase bed located below the radial arms (26);

a discharge outlet (32) from the dense phase bed; and

gas discharge above the bed (col. 4, lines 1-5).

With regard to the distributor in the well pipe as being for fuel and/or fluidizing gas, the material worked upon does not limit an apparatus claim. MPEP 2115.

Additionally, the manner of operating the device does not differentiate the apparatus claims from the prior art. MPEP 2114. As such, the single distributor (20) within the well pipe (18) of Murphy et al. can function to supply more than one feed and therefore reads on the instant claims.

With respect to claim 2, the distributor (38/40) distributes air in a ring around the well pipe (18) and below the radial arms (26).

With respect to claim 3, the small openings in distributor (20) (col. 3, lines 28-31) read on nozzles.

With respect to claims 5-7, Murphy et al. further discloses wherein steam (col. 3, lines 27-28) is supplied to the distributor (20) for fluidization.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (4,150,090) as applied to claim 1 above, and further in view of Ramachandran et al. (5,565,089).

With respect to claim 4, Murphy et al. discloses all of the structure as described above, but fails to disclose a source of fuel oil into the regenerator distributor (20).

Ramachandran et al. also discloses a device for regenerating cracking catalyst and teaches wherein the regenerator should be provided with fuel (col. 4, lines 41-45) in order to quickly obtain the desired operating temperature when the process is started cold (col. 3, lines 17-23). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide a source of fuel to the distributor (20) of Murphy et al. in order to provide a means by which the desired operating temperature can be reached during a cold start.

Art Unit: 1764

8. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murphy et al. (4,150,090) as applied to claim 1 above, and further in view of Castagnos, Jr. et al. (4,062,759).

With respect to claims 10 and 11, Murphy et al. discloses all of the structure as described above, but fails to illustrate the upper portion of the standpipe (12) and how it extends through the regeneration vessel.

Castagnos, Jr. et al. also discloses a device for regenerating cracking catalyst and teaches wherein the substantially vertically downward/standpipe portion of the spent-catalyst inlet is connected to an angled conduit (105) to reach the axial center of the regenerator (102) (col. 4, lines 47-59). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide an angled portion at the upper end of the standpipe of Murphy et al. since it is merely the selection of a spent catalyst connection means known to the art as taught by Castagnos, Jr. et al. and one would have a reasonable expectation of success in doing so. One would be motivated to look to other catalyst regeneration device spent-catalyst connections since such a connection through the regenerator is not provided by Murphy et al. as well as in order to provide a connection which does not interfere with the upper portion of the regenerator thus leaving room for cyclones and other required elements.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexa D. Neckel whose telephone number is 571-272-

Art Unit: 1764

1446. The examiner can normally be reached on Monday - Thursday from 9:00 AM - 7:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Alexa D. Neckel
Examiner
Art Unit 1764

December 1, 2005


ALEXA DOROSHENK NECKEL
PRIMARY EXAMINER